

Model Redpine Signals Technical Database Paper

Q1) What is output for the following program.

```
#include  
main()  
{  
    int *p,*q,i;  
    p=(int *)100;  
    q=(int *)200;  
    i=q-p;  
    printf("%d",i);  
}
```

- a) 100
- b) 25
- c) 0
- d) compile error

ANS: b) 25

Q2) What is output for the following program.

```
#include  
#define swap(a,b) temp=a,a=b,b=temp;  
main()  
{  
    int a=5,b=6;  
    int temp;  
    if(a>b)  
        swap(a,b);  
    printf("a=%d,b= %d",a,b);  
}
```

- a) a=5 b=6
- b) a=6 b=5

Model Redpine Signals Technical Database Paper

- c) a=0 b=6
- d) None

ANS: a a=5 b=6

Q3) What is output for the following program.

```
#include  
main()  
{  
    unsigned char i;  
    for( i=0;i<300;i++)  
    {  
        printf("*");  
    }  
}
```

- a) 299
- b) 300
- c) infinite
- d) none

ANS: c (infinite)

Q4) What is output for the following program.

```
#include  
main()  
{  
    int n=2;  
    int sum=5;  
    switch(n)
```

Model Redpine Signals Technical Database Paper

```
{  
case 2:sum=sum-2;  
  
case 3:sum*=5;  
break;  
default :sum=0;  
}  
printf("%d",sum);  
}
```

- a) 15
- b) 0
- c) 6
- d) none

ANS: a (15)

Q5) What is the program indicates

```
#include  
main()  
{  
char *q;  
int *ip;  
q=(char *)malloc(100);  
ip=(int *)q;  
free(ip);  
}
```

- a)it frees all allocated memory.
- b)it frees 400 bytes of memory.
- c)segmentation fault.

Q6)What is output for the following program.

Model Redpine Signals Technical Database Paper

```
#include  
main()  
{  
    int a=10,b=5;  
    if(a=a&b)  
        b=a^b;  
    printf("a=%d,b=%d",a,b);  
}
```

- a) a=0,b=5
- b) a=10 b=5
- c) a=0,b=0
- d) none

ANS: a a=0,b=5

Q7)What is output for the following program.

```
#include  
main()  
{  
    int a[5],i,*ip;  
    for(i=0;i<5;i++)  
        a[i]=i;  
    ip=a;  
    printf("%d",*(ip+3*sizeof(int)));  
}
```

- a) 0
- b) 5
- c) 1
- d) none

Model Redpine Signals Technical Database Paper

ANS: d (none)

Q8) What is the size of the structure.

```
#include  
main()  
{  
    struct  
    {  
        char a;  
        short b;  
        int c;  
    }temp;  
}
```

- a) 7
- b) 8
- c) 12
- d) 120

ANS: b

Q9) What is output for the following program.

```
#include  
main()  
{  
    unsigned char c[]={0x1,0x2,0x3,0x4,0x11,0x22,0x33,0x44};  
    unsigned int *p=c;  
    unsigned short *s=c;  
    printf("%x %x %x",c[2],p[2],s[2]);  
}
```

Model Redpine Signals Technical Database Paper

ANS: please execute this program.

Q10) What is the difference between these two declarations:

- i) `int *f()`
- ii) `int (*f)()`

Q11) Define pointer to function that take argument as character pointer and return void pointer.

ANS: `void *(*f)(char *)`

Q12) $5-2-3*5-2$ evaluates 18 then

- i) - left associative * has precedence over -
 - ii) - right associative * has precedence over -
 - iii) * left associative - has precedence over *
 - iv) * right associative - has precedence over *
-
- a) i
 - b) ii
 - c) iii
 - d) iv

ANS: iv

Data Structure questions:

Q1) Difference between re-entrance and recursion.

Model Redpine Signals Technical Database Paper

Q2) In which data structure recursion can be used.

ANS: Stack.

Q3) Merge sort problem can be solved using which method.

ANS: Divide and conquer strategy.

Q4) 8 queens problem can be solved by using which method.

ANS: Back tracking.

Operating systems:

Q1) What are the necessary conditions for Deadlock

Q2) Two problems on memory management.

ANS: 68.5 ns(average access time.)

Q3) What are the different types of IPC mechanisms.

Q4) Specify any 3 regarding the context of process?

Q5) Advantages and Disadvantages of cache buffer?

Model Redpine Signals Technical Database Paper

Q6) Increasing memory many page faults occur

ANS: FIFO

Computer Networks:

Q1)What is the use of ICMP in TCP/IP stack?

Q2)What is the use of ARP in TCP/IP stack?

Q3)What is the header length of Ether Net MAC.

Q4)What is the mechanisms used for error detection in Data Link Layer?

ANS: CRC(cyclic redundancy check.)